

**MOBILE AD HOC NETWORK (MANET) WITH QUALITY-OF-SERVICE
(QoS) PROTOCOL HIERARCHY AND RELATED METHODS**

Abstract of the Disclosure

A mobile ad hoc network (MANET) may include a plurality of mobile nodes each including a wireless communications device and a controller connected thereto operating in accordance with a multi-layer protocol hierarchy. More particularly, the controller may, at an application layer, establish a quality-of-service (QoS) threshold, and at a QoS support layer below the application layer, determine whether to require data reception acknowledgements based upon the QoS threshold. At a QoS coding layer below the QoS support layer, data from the application layer may be encoded for transmission to a destination mobile node(s). Additionally, at a QoS route selection layer below the QoS coding layer, at least one route to the destination mobile node(s) may be selected based upon the QoS threshold. At a QoS traffic layer below the QoS route selection layer, data traffic flow may be controlled based upon the QoS threshold.